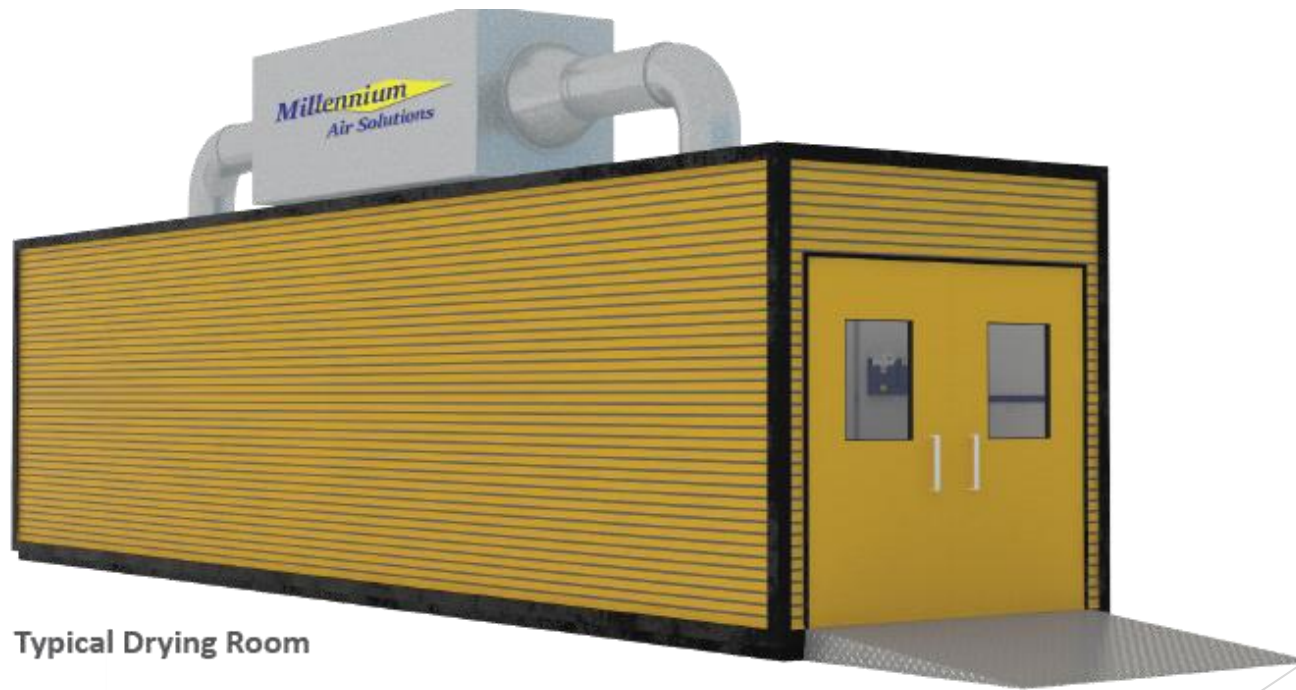


Millennium Air Solutions Ltd.

Smart Drying Rooms for Date



Typical Drying Room

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Smart Drying Rooms for Dattles

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- ▶ General information
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About Us

Since its establishment in 1998, Millennium has specialized in developing, producing and implementing air solutions including climate control, air drying and humidity solutions, clean rooms, efficient industrial cooling systems and more.

Our systems are suitable for a plethora of industries and can be tailored to the specific requirements and needs of a diverse clientele.

We can simulate the accurate conditions and parameters that you need in the most smart and efficient way.

Just share your needs and we will suite the best solution for you.

Smart Drying Rooms - General Information

After many trials and deepening in the nuances of thermodynamics Millennium Air Solutions Ltd. have created special systems that enable users to manage **precise and controlled desiccating cycles**, while continuously tracking the dew point through the integration of all selected system components and adapted to work synergistically.

Most solutions in the current market requires between 2-3 complexed and wasteful sub systems with individuals controls to create the special environment needed for drying.

The drying/air humidity adsorption process occurs in air cooling to the dew point, which is determined by the technology as a combination of temperature and relative humidity. Reheating is used using the residual heat created in the gas system and is utilized intelligently and measured in the drying array.

Technical Data - Suitable Conditions For (Palm) Dates Drying

- Heating the drying area to 50-55 (°C) using low amount of power due to residual heat.
- Flexible and Accurate Air flow control (air flow direction change is optional).
- Equal and stable airflow in the whole drying area.
- Electricity consumption to the whole system: 18 KW.
- Heat energy produced from the system: 100KW.



Technical Data - Suitable Conditions For (Palm) Dates Drying

- Enable analysis for the amount of moisture dehumidified from the room.
- Enable analysis for the total amount of power invested in the drying process.
- Smart control system based on PLC controller.
- Ability to logging and analyze data of climate and other measured parameters for long term energy saving.



Smart Drying Rooms - Technical Data for the different models

Dehumidification Systems Models

Model No.	Nominal Capacity (liter/hour)	Drying Temperature (°C/°F)	Outside Temperature (°C)
DS-10	10	12°C-50°C/ 53.6°F-122°F	The process doesn't depend on the ambient temperature
DS-20	20		
DS-50	50		
DS-100	100		
DS-150	150		
DS-250	250		

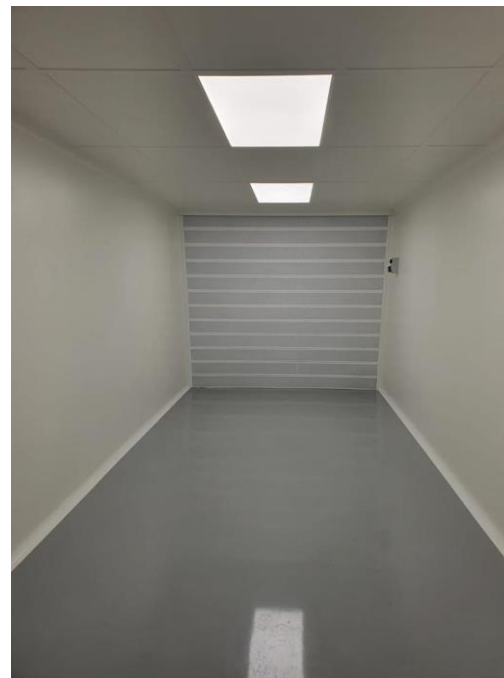
Smart Drying Rooms - Key Advantages

- **Energy savings**: up to 70%.
- **Set drying protocols tailored to the specific requirements** - based on customer requirements.
- **Intelligent drying process management**: remote and flexible process management.
- **Controlled parameters**: temperature, humidity, airflow, CO₂ and more.
- **One smart system** that combines and managing all the requirements.
- **Complete and fully automatic control of the drying measures** - an advanced control panel with remote accesses.
- **Ready to G.A.P standards**.

Smart Drying Rooms - Key Advantages

- **Correct plant/product handling - reduce depreciation** - minimize the loose of produce and maximize the quality of the product (especially in sensitive cases such as cannabis or dates).
- Treatment of harmful and pollutants.
- 98% Usage of the room for drying.
- Very Low room operation cost.
- Easy uploading and discharge.

Drying Rooms - Projects



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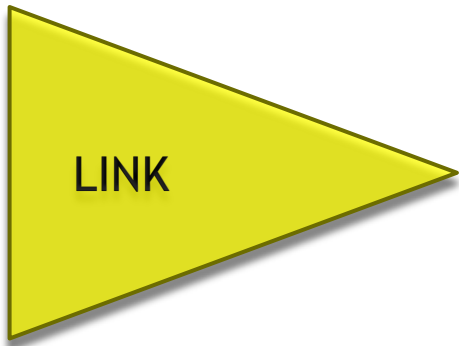
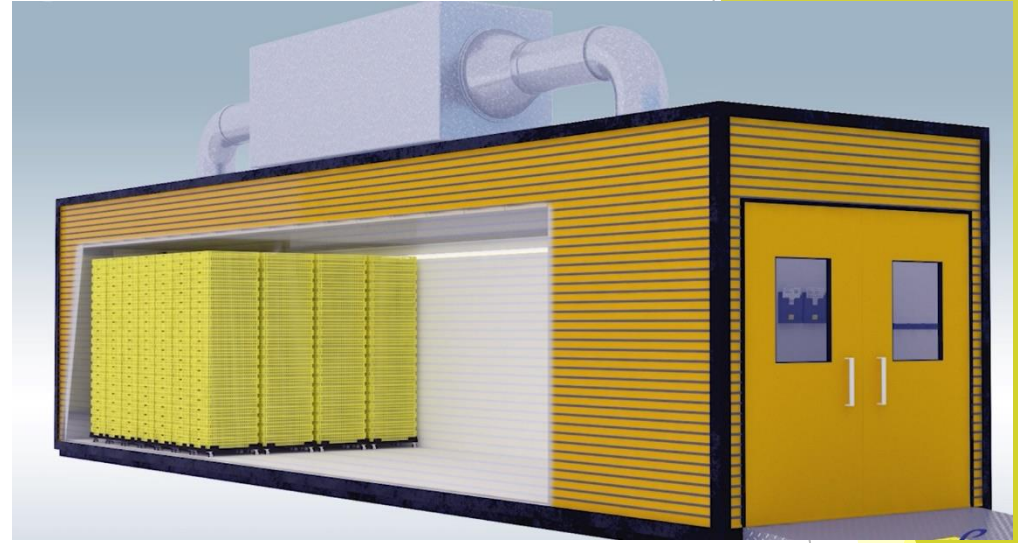
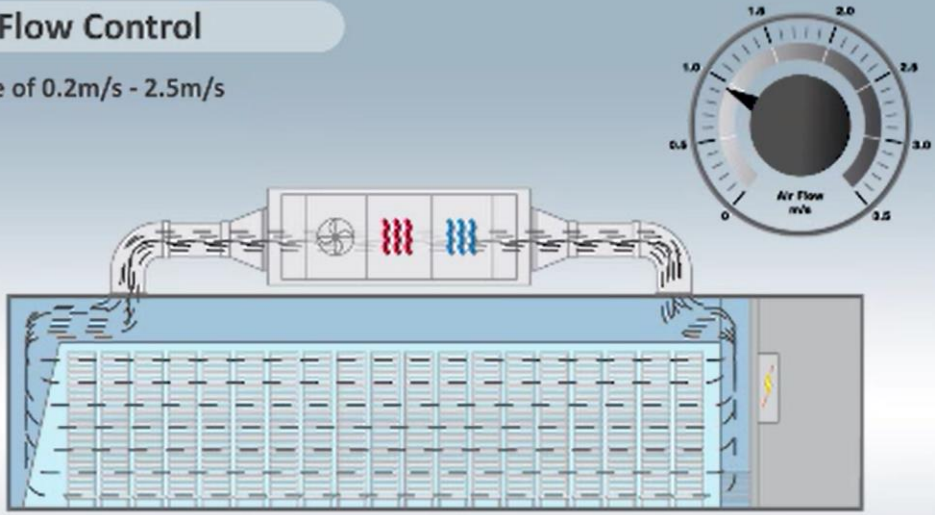
Drying Rooms - Projects



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Air Flow Control

range of 0.2m/s - 2.5m/s



Typical Drying Room

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4A7EC02 - TightVNC Viewer

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Drying Room 1

Automatic mode

The diagram illustrates the airflow and components within the drying room. Air enters from the left through a fan, passes through a heating coil, a UV lamp, a cooling coil, and a condenser before exiting to the right. A circulation fan is also shown at the bottom of the room.

Temp. Setpoint	16.5 °C
%RH Setpoint	55 %
Vel. Setpoint	2

Room Climate	Room RH	Supply Temp.	System LP	System HP	Air Flow Vel.	System Temp.
28 %	4.1 °C	81.5 Psi	287.9 Psi	1.19 m/s	7.5 °C	
17.1 °C	Room Temp.					

Condenser Control comand: 0 %

Circulation Fan Control comand: 21 %

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ANY TYPES OF GRAPHS

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User: guest

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Room Temperature and humidity graph

80.0

64.0

48.0

32.0

16.0

0.0

Room temperature ■
Room humidity ■

Temperature and humidity graph

Pressure and system temp.

Absolut humidity room and condenser graph

Estimated water amount graph

03:37:08

04:57:08

06:17:08

07:37:08

faults

graphs

SATEC

technician

Work

main

protocol

Our Company Guidelines / Credo:

The journey experience is just as important as the end result

- Full collaboration with the client at all project stages.
- Maximum transparency from initiation to final operation and delivery.
- Complete coordination of expectations.
- Consulting and guidance in the construction of the room, including planning the loading of goods for drying.
- Meeting planned schedules and close accompaniment after operating the system.
- Orderly, controlled and transparent conduct in accordance with project schedules and advancement reports.

Energetic Streamlining

- Direct and significant savings on resources and operating costs.
- Decreasing maintenance and operation workload due to the systems' cost-effectiveness.

Thank You

We're here for you to succeed
and waiting for the next
meeting

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